Separation of triethanolamine from a mixture obtained by reaction of ammonia with ethylene oxide

Abstract

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Process for separating triethanolamine continuously by distillation from a mixture of monoethanolamine, diethanolamine and triethanolamine together with ethanolamine ethers and water obtained by reaction of ammonia with ethylene oxide in the liquid phase under superatmospheric pressure and at elevated temperature, in which the mixture is distilled in two stages. The low-boiling fraction and the high-boiling fraction are taken off and discharged in the first stage and the intermediate-boiling fraction comprising > 99.4% by weight of triethanolamine and < 0.2% by weight of diethanolamine is distilled in the second stage. The distillation of the mixture is preferably carried out in a first column and a second column connected to this or in a dividing wall column.